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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Implementation of Section 304)
of the Telecommunications)
Act of 1996)
)
Commercial Availability)
of Navigation Devices)

CS Docket No. 97-80

COMMENTS OF THE
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION

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SUMMARY

The vast majority of commenters in this proceeding, encompassing a broad sweep of the affected industries, embrace the pro-competitive philosophy set forth in the *Notice*, and support the principal that consumers, not service providers should be the arbiters of what equipment customers can deploy on their premises to gain the full benefit of the services to which they subscribe. There is substantial support for the proposition that the public should have the right to attach non-network devices to MVPD networks, so long as harm to the network does not result. Several parties have expressed support for the application of the “telephone model” or Part 68-like requirements in the context of video CPE to protect against harm to MVPD networks.

Retailers, equipment manufacturers, and cable providers all agree that the way to reconcile the “right to connect” with the necessity of protecting the integrity of MVPD systems is to separate out security functions from non-security functions and include only the latter in commercially available CPE. Recent developments in the standard-setting process, such as the analog “decoder interface” standard and the digital National Renewable Security Standard, make such unbundling possible and appropriate.

As CEMA and others explained in their initial comments, Section 629 recognizes that that consumer choice is maximized by the competitive availability of devices from a variety of manufacturers and through a variety of outlets. The intent of Section 629 was the creation of an open, vigorous market in CPE which will maximize consumer choice. This goal clearly goes unserved if the consumer’s “choice” is limited to equipment provided by a single manufacturer or vendor.

Numerous parties recognize that no competitive market can exist unless CPE manufacturers are granted sufficient access to the standards and specifications necessary to connect commercially available navigation devices with MVPD networks. Manufacturers cannot design products in a competitive market unless they have access to the interconnection and interoperation characteristics of the system to which those devices will connect. In addition, any proprietary technologies that affect interconnection and interoperation must be available for incorporation in the product design.

The Commission should take appropriate action to ensure that effective interconnection standards are created to ensure portability, interoperability, and the development of a competitive video CPE market. CEMA and other parties that have advocated a positive role for government in setting rules to create commercial availability of navigation devices have not argued for government-mandated video CPE standards *per se*, but for rules that would govern the interconnection of such CPE with the networks of MVPDs, much as the Commission's Part 68 rules govern the interconnection of telephone CPE with telephone company networks. Portability and interoperability of video CPE are necessary for the establishment of any truly competitive market for these devices. Portability and interoperability on a national scale require standard interfaces between video CPE and the MVPD networks to which these devices connect. The Commission therefore should do what is necessary and appropriate to ensure that such standards are created.

In short, the Commission should take action in this proceeding to:

- establish a "right to attach" as a basic principle for a competitive video CPE market;
- establish rules that require broad commercial availability of video CPE and proscribe restrictive licensing and contractual relationships between MVPDs and CPE suppliers;

- establish rules for the disclosure of MVPD network technical information necessary for the manufacture of portable and interoperable navigation devices;
- take appropriate action to ensure the development of standards that address network harm and network security, provide for the unbundling of security circuitry from non-security circuitry, and will ensure the portability and interoperability of navigation devices on a nation-wide basis.

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**REPLY COMMENTS OF THE
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

The Consumer Electronics Manufacturers Association ("CEMA") hereby replies to the comments that were filed in response to the Notice of Proposed Rule Making ("*Notice*") which the Commission issued in the above-captioned proceeding on February 20, 1997.¹

I. INTRODUCTION

In its initial comments, CEMA urged the FCC to conclude that:

- Section 629 of the Telecommunications Act requires that the public have a right to interconnect competitively provided navigational devices to any compatible multichannel video programming system. This "right to attach" is a basic principal that will serve as the foundation for the construction of a competitive market in navigational devices.
- Section 629 requires that consumers have maximum choice in CPE used in conjunction with multichannel video services, and reflects the sound principal that competition, not regulation, is the best and most effective way to ensure consumer

¹ See Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigational devices, CS Docket No. 97-80, FCC 97-53 (released Feb. 20, 1997) [hereinafter "*Notice*"].

choice. Furthermore, Section 629 recognizes that consumer choice is maximized by the competitive availability of devices from a variety of manufacturers and through a variety of outlets.

- In order to build competitive devices, manufacturers will need timely access to the standards and specifications necessary to enable equipment interconnection. While intellectual property rights must be duly recognized, such disclosures must be sufficiently broad in scope and defined in detail to permit CPE manufacturers to design equipment that will be completely interoperable with MVPD transmission systems.
- In noncompetitive multichannel video services markets, safeguards should be adequate so as to prevent the bundling of CPE and services. If a system provider in a non-competitive market chooses to provide CPE, the Commission should require that equipment be produced and sold through a separately-owned affiliate.
- To the greatest degree possible, security circuitry must be physically separated from other navigational device functions. While MVPDs are entitled to reasonable protection against unauthorized reception of service, there is no longer any essential technical reason why the security and non-security functions of navigation devices cannot be decoupled.

A review of the comments filed by other parties confirms the validity of these recommendations. The vast majority of commenters, encompassing a broad sweep of the affected industries (consumer electronics and computer manufacturers,² retailers,³ DBS and cable operators,⁴ video programming distributors,⁵ and local exchange carriers entering the video programming market),⁶ embrace the pro-competitive philosophy set forth in the *Notice*, and support the principal

² CEMA, Information Technology Industry Council and the Computing Technology Industry Association ("ITI/CompTIA"), Uniden, Motorola, Business Software Alliance.

³ Consumer Electronics Retailers Coalition ("CERC"), Circuit City Stores, Tandy Corp.

⁴ DirecTV, Inc., Time Warner.

⁵ Viacom.

⁶ Americast, Ameritech New Media, GTE, U S WEST.

that consumers, not service providers should be the arbiters of what equipment customers can deploy on their premises to gain the full benefit of the services to which they subscribe. Although a very few parties propose a continuation of the non-competitive status quo, most commenters recognize that Congress expressly passed Section 629 in order to create a commercial market for navigational devices characterized by competition and consumer choice.

II. THERE IS SUBSTANTIAL SUPPORT FOR THE PROPOSITION THAT THE PUBLIC SHOULD HAVE THE RIGHT TO ATTACH NON-NETWORK DEVICES TO THE MVPD NETWORK, SO LONG AS HARM TO THE NETWORK DOES NOT RESULT.

Despite the diversity of business interests represented by the commenters in this proceeding, the comments themselves demonstrate a widespread and welcome consensus that the Commission should promote a vigorous market for CPE characterized by consumer choice and competition. For example, Zenith Electronics Corporation, a major manufacturer of cable set-top boxes, notes that:

[C]onsumers will benefit from having more choices among multiprogram video services arriving by a variety of distribution sources and from marketplace competition brought about by the commercial availability of set-top boxes.⁷

An essential prerequisite to the development of a competitive market is the “right to attach.” As embodied in the *Carterfone* decision,⁸ the Commission’s assertion of a “right to attach” in the telephone context was instrumental in allowing the development of a telephone CPE marketplace characterized by portability and interoperability. Several parties have expressed support for the

⁷ See, e.g., Zenith Comments at 6. All of the comments cited herein were filed on or about May 18, 1997, unless otherwise specifically noted.

⁸ *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC2d 42, *recon. denied*, 14 FCC2d 571 (1968).

application of the “telephone model” or Part 68-like requirements in the context of video CPE to protect against harm to MVPD networks.⁹

Cable interests strongly caution that the right to attach must not compromise the security of the network.¹⁰ Retailers, equipment manufacturers, and cable providers all agree that the way to reconcile the “right to connect” with the necessity of protecting the integrity of MVPD systems is to separate out security functions from non-security functions and include only the latter in commercially available CPE.¹¹

As CEMA noted in its comments, there is no longer any technical rationale why security circuitry and non-security circuitry need not be decoupled, now that the private sector standards process has developed an analog “Decoder Interface” standard that provides for a separate security module.¹² Whether or not the Commission chooses to accept the draft “Decoder Interface”

⁹ E.g., Zenith Comments at 6; ITI/CompTIA Comments at 15-16; Uniden Comments at 3.

¹⁰ See, e.g., NCTA Comments at 24.

¹¹ *Id.* at 26.

¹² Echelon’s extensive attack on the decoder interface standard is not relevant to the present proceeding, and should be addressed instead in the context of ET Docket No. 93-7. In that proceeding CEMA has responded at length to the allegations raised by Echelon regarding the legality of the decoder interface standard, and will not do so again here. See Opposition and Comments of the Consumer Electronics Manufacturers Association to Petitions for Further Reconsideration and Clarification, *Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992--Compatibility Between Cable Systems and Consumer Electronics Equipment*, ET Docket No. 93-7 (filed July 5, 1996). Nonetheless, CEMA is compelled to reject categorically all of Echelon’s reckless and unfounded accusations of improprieties in the EIA standard-setting process that is approaching finalization of the decoder interface standard. More to the point, CEMA emphasizes that nothing in Section 624A(c)(2)(D) (the “Eshoo Amendment”) in any way constrains the Commission from applying this interface as necessary in the context of Section 629. Indeed, the House Commerce Committee Report on the 1996 Telecommunications Act expressly states that the 1996 amendment

as a mandatory standard is not central to this proceeding. What is important, however, is the fact that the use of a separate security module now makes possible adoption of a “right to attach” for analog navigational devices while maintaining full network security for the MVPD operator. For digital devices, the “National Renewable Security Standard” or “NRSS” promises to provide at least the equivalent in network access protection, with even greater capabilities for the separation of security and non-security through modular, “smart-card” architectures.¹³ The Commission should ensure that all newly deployed navigational devices separate security and non-security functions accordingly.

The cable industry argues that a requirement for the unbundling of security and non-security functions would be contrary to the intent of Section 629 and would “force consumers to purchase boxes with non-security functions at retail, rather than merely giving them a choice to do so.”¹⁴ CEMA believes that this argument is misplaced. A requirement for unbundling such as CEMA and others have advocated would not mean that cable operators could not supply set-top boxes. Rather, the boxes supplied would simply be modular in nature, such that a consumer could easily disconnect the non-security module and replace it with another, commercially available model. This approach is consistent with any reasonable interpretation of Section 629 because it leaves security functions firmly in the realm of the system operator. Moreover, consumers would

to Section 624A “is not intended to restrict the Commission’s authority to promote the competitive availability of converter boxes, interactive communications devices, and other customer premises equipment as required by [Section 629] of this legislation.” H.R. Rep. No. 104-204, 104th Cong., 1st. Sess. 111 (1995).

¹³ See CERC Comments at 17-20; *see generally* Tandy Comments at 13; Motorola Comments at 28; Time Warner Comments at 11-13.

¹⁴ NCTA Comments at 29 (emphasis in the original).

not be “forced” to do anything. Just as some telephone subscribers continue to pay a monthly lease to the telephone company for the CPE they use, subscribers to cable and other MVPD services could elect to lease non-security CPE from their system operators, subject to the non-subsidization requirements of Section 629. On the other hand, if cable operators are allowed to continue to supply integrated set-top boxes that require elaborate re-provisioning by the consumer to replace (*i.e.*, de-installation of the integrated box and installation of a security-only box by the system operator, plus close technical examination by the consumer to ensure the compatibility of the latter with the non-security CPE to be obtained commercially), then there will be a significant barrier to the realization of a competitive video CPE marketplace, and the “commercial availability” required by Section 629 will be seriously undermined.

III. COMMENTERS ENCOURAGE THE COMMISSION TO FIND THAT SECTION 629 REQUIRES THAT CONSUMERS BE GIVEN MAXIMUM CHOICE WITH RESPECT TO THE CPE USED IN CONJUNCTION WITH MULTICHANNEL VIDEO SERVICES.

Commenters widely acknowledge the enormity of the task of creating a competitive market in navigational devices from the current monopolistic system. Accordingly, many support CEMA’s suggestion that the Commission prioritize its efforts in digital navigational equipment, which present fewer obstacles with respect to embedded base and security concerns.¹⁵ In addition, there is widespread support for the inclusion of open video systems (“OVS”) within the scope of the commercial availability policies to be implemented by the Commission.¹⁶

¹⁵ Viacom emphasizes the importance of immediately preparing a competitive market for analog equipment, noting that otherwise the first entity to successfully market a DTV set-top box will be able to create a *de facto* standard. Viacom Comments at 18-25.

¹⁶ *See, e.g.*, U S WEST Comments at 9-10, Time Warner Comments at 24-25; CERC Comments at 13-15.

CEMA is concerned that the Commission's Section 629 rules should have the broad reach intended by Congress. Limiting the application of these rules to MVPDs subject to rate regulation, as advocated by some parties in this proceeding, would be contrary to Congressional intent. As CEMA explained in its initial comments, Section 629's broad sweep is not curtailed by the rate regulation provisions of the Cable Act, in that the "commercial availability" provision of the first sentence of Section 629 is not limited in its scope by the "not subsidized" language of the second sentence.¹⁷

As CEMA and others explained in their initial comments, Section 629 recognizes that that consumer choice is maximized by the competitive availability of devices from a variety of manufacturers and through a variety of outlets. A small number of parties, however, have argued that MVPD operators should be able to meet their Sec. 629 obligations by making CPE available through a single licensed manufacturer and sales outlet agency arrangement.¹⁸ CEMA disagrees that such an arrangement would fully satisfy Congress' intent in enacting section 629. The intent of Section 629 was the creation of an open, vigorous market in CPE which will maximize consumer choice. This goal clearly goes unserved if the consumer's "choice" is limited to equipment provided by a single manufacturer or vendor.¹⁹

The plain language of Section 629 requires the Commission to ensure that navigational devices are commercially available "from *manufacturers, retailers, and other vendors*

¹⁷ CEMA Comments at 11-12.

¹⁸ See, e.g., Echelon Comments at 31; General Instrument Comments at 15-18.

¹⁹ The lack of options available to consumers regarding cable CPE must be distinguished from the competitive marketplace found direct broadcast satellite industry. At present, there are five nationwide competing DBS providers, and DBS CPE is fully portable and available from a range of outlets and manufacturers.

not affiliated with any multichannel programming distributor.” This statutory language follows the Conference Report’s statement that the intent of Section 629 is to ensure that “consumers are not forced to purchase or lease a specific, proprietary converter box, interactive device or other equipment.”²⁰ The Commission must heed the intent of Congress and reject the argument that “commercial availability” is achieved when the same set-top box that is leased from a systems operator can be purchased from a single retailer. If this approach is adopted, the Commission will have done nothing to break the anticompetitive grip that dominant MVPDs have on the provision of navigation devices.

IV. THE COMMENTS INDICATE SUPPORT FOR THE DISCLOSURE OF SPECIFICATIONS NECESSARY TO ENSURE THE INTERCONNECTION AND INTEROPERABILITY OF COMMERCIAL NAVIGATION DEVICES WITH MVPD NETWORKS.

Numerous parties recognize that no competitive market can exist unless CPE manufacturers are granted sufficient access to the standards and specifications necessary to connect commercially available navigation devices with MVPD networks.²¹ Similarly, there is substantial support for the proposition that the Commission should require disclosure of technical data, protocols and software utilized by MVPDs that have a material effect on the interconnection and interoperability of competitively supplied CPE. Such disclosures need not encompass information about the design of MVPD-developed CPE, but rather information about the physical and logical interfaces of the MVPD’s network to which any CPE could attach. Should such information include

²⁰ S. Rep. No.104-230, at 181 (1996).

²¹ Business Software Alliance Comments at 8-10; ITI/CompTIA Comments at 10-11; Circuit City Comments at 21-22; CERC Comments at 29.

proprietary elements, then this proprietary information should be licensed on non-discriminatory terms and conditions.²²

Without such requirements, CEMA is apprehensive that the type of dysfunctional “gatekeeping” described by Viacom may indeed become a reality. Viacom expresses concern that a large MVPD and an allied manufacturer could dictate digital television transmission standards -- and ultimately the selection of programming -- on a *de facto* basis by being first to market and developing unbeatable economies of scale. If MVPDs or other “first-in” digital set-top box manufacturers were required to license their proprietary systems on a non-discriminatory basis, then enterprising manufacturers would at least have the opportunity to include such technologies in fashioning “multi-choice” boxes that could shift from one transmission standard to another and thus be configured to handle multiple MVPDs. In this regard, it is important to note that the development of open standards over the longer term should moot concerns about the Commission’s authority to require licensing of proprietary technologies that affect MVPD-CPE interconnection.

The importance of network information disclosure requirements cannot be underemphasized. Manufacturers cannot design products in a competitive market unless they have access to the interconnection and interoperation characteristics of the system to which those devices will connect. In addition, any proprietary interfaces that materially affect interconnection and interoperation of competitively-supplied CPE must be available for incorporation in the product design.²³

²² *E.g., id.* at 29-30; ITI/CompTIA Comments at 13.

²³ Although CEMA is aware of standardization activity underway in this area, it must be pointed out that the mere presence of a standard does not provide sufficient information to ensure the competitive availability of CPE from multiple sources when such standards may be implemented in a variety of ways.

V. THE COMMISSION SHOULD TAKE APPROPRIATE ACTION TO ENSURE THAT EFFECTIVE INTERCONNECTION STANDARDS ARE CREATED TO ENSURE PORTABILITY, INTEROPERABILITY, AND THE DEVELOPMENT OF A COMPETITIVE VIDEO CPE MARKET.

Several parties have expressed concern about the constraints on industry that would be imposed by so-called “government-mandated standards.” CEMA believes this argument, while it has a certain philosophical appeal, misses the point to a large extent when the practical aspects of the government’s role are examined.. It would be improvident, and equally unlikely, for the FCC to “impose” standards for video CPE that were created outside of the normal industry-consensus standards-setting process. At the same time, it is CEMA’s experience that a relatively small number of parties -- as few as one -- can greatly complicate a standards-setting process and create inordinate delays in that process for self-serving purposes. Timing is an important factor -- most commenters in this proceeding observe that the digital era for video CPE is already upon us and many argue that the Commission should focus only on digital equipment in this proceeding. In order to “jump-start” a competitive market in this environment, the Commission may be required to intervene through the rulemaking or declaratory ruling process to ensure that obstacles to competition and commercial availability created by the few do not frustrate the goals of the many, as well as undermine the overall public interest in a competitive video CPE market.

Moreover, CEMA and other parties that have advocated a positive role for government in setting rules to create commercial availability of navigation devices have not argued for government-mandated video CPE standards *per se*, but for rules that would govern the interconnection of such CPE with the networks of MVPDs, much as the Commission’s Part 68 rules

govern the interconnection of telephone CPE with telephone company networks.²⁴ CEMA and its members would strongly resist any attempt to impose rules on the design of CPE that are not related to network harm or network security. This is a crucial distinction that risks being drowned out as the volume levels increase from those that inveigh against “government-imposed standards” for CPE with such intensity.

The practical facts are plain: portability and interoperability of video CPE are necessary for the establishment of any truly competitive market for these devices. Portability and interoperability on a national scale require standard interfaces between video CPE and the MVPD networks to which these devices connect. In the long term, it makes little technical difference if these standards are created on a wholly private industry basis, or if they result from a Commission rulemaking, or if they are finalized by the Commission after an industry advisory committee

²⁴ See Circuit City Comments at 17-18; ITI/CompTIA Comments at 12. As an example of this confusion over what kind of standards are at issue in this proceeding, Echelon and others cite the case of telephone modems as a “success story” for the private standard-setting process that shows that government intervention is unnecessary and possibly harmful. Echelon Comments at 18. In fact, the issue of what transmission system high-speed modems would use would never have been presented without government action to unbundle and deregulate telephone CPE, including modems, and to set standards for the interconnection of this CPE to the telephone network. Indeed, if the FCC had not moved to create Part 68 and unbundle modems and other CPE from the telephone network through the use of appropriate interconnection standards, the development of high-speed modems would have been greatly delayed, as the monopoly Bell System resolutely “protected” its network from interconnection with devices other than Western Electric’s, which operated at 2.4 kilobits per second. (State-of -the-art analog modems now can achieve throughputs of 56 kilobits per second.) Market forces can only be brought to bear on standards issues once a market has been allowed to form, and it is the Commission’s task in this proceeding to create the legal and regulatory environment -- including interconnection regulations -- in which a video CPE market can develop. In so doing, the Commission can promote rapid technological advances, like high-speed modems, that will greatly increase consumer welfare.

process,²⁵ as long as the standards are open, efficacious, and capable of reasonably accommodating new media and technologies with little or no modification. Without such standards, no competitive market will exist. The Commission therefore should do what is necessary and appropriate to ensure that such standards are created and applied.

The need to protect against network harm through Part 68-like registration has been accepted by parties as diverse as a cable set-top manufacturer (Zenith) and computer industry trade associations (ITI/CompTIA).²⁶ The Commission should move quickly to set such rules in place that will establish appropriate technical criteria for the electrical interconnection of video CPE.

Network security is not the intractable issue it once was nor as described by some parties that wish to use this issue as a means of escaping or delaying the unbundling of CPE from MVPD networks. As CEMA discussed in its initial comments, both the digital NRSS and the analog decoder interface standards are near completion in the standard-setting process and offer an effective means for separating security functions and circuitry from non-security functions and circuitry. CEMA believes that the application of these standards to separate security and non-security circuitry for devices deployed in the future would likewise present few significant cost issues for MVPDs and hardly any for consumers. Any economies that may spring from integration of security and non-security functionalities (most likely manifested as “one-stop shopping” for consumers) in devices that could only be provided by the MVPD itself or its agent -- because of the need to prevent unauthorized access -- must be balanced against the harm such devices would wreak on nascent competition where new entrants must face well-established incumbents in any case. The

²⁵ See Ameritech New Media Comments 10-13; Americast Comments at 7-8.

²⁶ See *supra* at note 9.

Commission should make it plain in its first report and order in this proceeding that security and non-security features, functionalities, and circuitry for newly-deployed video CPE must be unbundled, and require the use of appropriate standards for this purpose.

In CEMA's view, the portability and interoperability of navigation devices with respect to non-security functionalities present a more difficult set of standard-setting issues than security matters. In this regard, CEMA is encouraged by the proposals put forward by Viacom and Time-Warner. Viacom's concept of a "universal, multi-choice digital set top box,"²⁷ with hardware modules accessible to the software of each and every MVPD, is not far removed from Time Warner's idea of a "common integrated hardware platform" that can be accessed and addressed by MVPD service providers.²⁸ CEMA proposes that the Commission take appropriate action in this docket to facilitate nation-wide portability and interoperability standards that will make these types of future platforms possible. CEMA emphasizes, however, that the appropriate goal for this activity should be interface standards that will be applied to MVPDs, and that the Commission should not adopt rules that would dictate or anyway limit the design possibilities available to manufacturers. In this manner, the Commission can promote portability, interoperability and a competitive marketplace for navigation devices, with a maximum potential for growth, innovation, and increased consumer benefit.

VI. CONCLUSION

For the reasons given above and based on the record compiled in this proceeding, the Commission should take action in this proceeding to:


²⁷ Viacom Comments at 6-9.

²⁸ Time Warner Comments at 42-43.

- establish a "right to attach" as a basic principle for a competitive video CPE market;
- establish rules that require broad commercial availability of video CPE and proscribe restrictive licensing and contractual relationships between MVPDs and CPE suppliers;
- establish rules for the disclosure of MVPD network technical information necessary for the manufacture of portable and interoperable navigation devices;
- take appropriate action to ensure the development of standards that address network harm and network security, provide for the unbundling of security circuitry from non-security circuitry, and will ensure the portability and interoperability of navigation devices on a nation-wide basis.


Respectfully submitted,

CONSUMER ELECTRONICS
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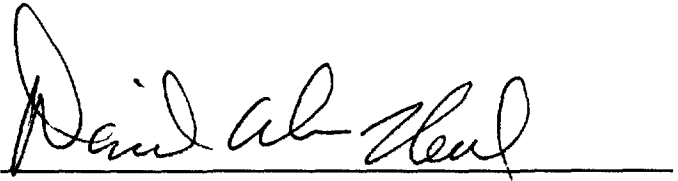
June 23, 1997

CERTIFICATE OF SERVICE

I, David Alan Nall, do hereby certify that on this 23rd day of June, 1997 I have caused a copy of the foregoing to be served via hand delivery upon the persons listed below:

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A handwritten signature in black ink, appearing to read "David Alan Nall", is written over a horizontal line.

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